

REMARKS

This is intended as a full and complete response to the Office Action dated March 27, 2008, having a shortened statutory period for response set to expire on June 27, 2008. Claims 1-12, 18-19, 22-24, 26, 28, 30, and 31-36 remain pending in the application and are shown above. Claims 13-17 have been cancelled, and new Claims 32-36 have been submitted for consideration by the Examiner. Reconsideration of the rejected claims is requested for reasons presented herein.

Claim Rejections Under 35 U.S.C. §§ 102 and 103

Claims 1-19, 22-24, 26, 28, 30, and 31 are rejected under 35 U.S.C. §§ 102 as anticipated by and/or under 35 U.S.C. § 103(a) as being unpatentable over *Bodnar* (U.S. Patent No. 5,143,94 5). The Examiner asserts that *Bodnar* discloses all of the elements of the pending claims or that it would have been obvious for one having ordinary skill in the art to have employed catalysts within the teachings of *Bodnar*; that it would have been obvious for one having ordinary skill in the art to have employed water as the blowing agent of *Bodnar*; that it would have been obvious to discover optimum or workable ranges from the teachings of *Bodnar*; and that it would have been obvious for one having ordinary skill in the art to have prepared foams in the absence of halocarbon as taught by *Bodnar*.

Bodnar discloses as its novelty over the prior art a blowing agent mixture of a halocarbon blowing agent and an organic carboxylic acid for use in a foam mixture of an organic polyisocyanate, a polyol, and a trimerization catalyst. *Bodnar* discloses that water may be added to the blowing agent mixture having a halogen compound. However, the addition of water only reduces the amount of halocarbon and carboxylic acid in the blowing agent mixture rather than as a substitution of the water. Additionally, the background of *Bodnar* discloses the use of water with specific catalyst structures and further discloses that carboxylic acids and combinations of carboxylic acids and water may be used as blowing agents. *Bodnar* then further states that the blowing agent mixture of halocarbons and carboxylic acids as being superior to the background's description of carboxylic acids and combinations of carboxylic acids and

water as blowing agents. *Bodnar* further describes the retention (requirement) of halocarbons in rigid polyisocyanate based closed cell foams albeit at environmentally helpful levels as necessary to form superior rigid polyurethane foams over foams blown with carboxylic acids or combinations of carboxylic acids and water. As such, *Bodnar* does not provide any suggestion or motivation of a blowing agent free of halogen atoms selected from the group consisting of a hydrocarbon free of halogen atoms or a mixture of water and hydrocarbon free of halogen atoms, or of the specific amounts and selection of catalysts for use therewith, as recited in the claims. Support for the claim amendments is found at page 6, line 15, to page 7, line 15, of the specification.

Bodnar further discloses that the carboxylic acid is critical with respect to the total equivalents of tertiary amine present in the reaction mixture in order to obtain the desired blowing action. Thus, *Bodnar* provides no suggestion or motivation as to the claimed amounts and catalyst selection, including the metal salt trimerization catalyst, as recited by claims. Further, *Bodnar* provides no basis for suggesting the subject-matter as recited by the claims through routine experimentation or optimum values from the specific blowing agents and critical components equivalents requirement of *Bodnar*.

Additionally, *Bodnar* is silent as to the use of a carboxylic acid functionalised with at least one SH, NH₂, NHR, NO₂ or halogen functional group, wherein R is an alkyl, cycloalkyl or aryl group as recited in dependent claims 5-8 and 39, and independent claim 30.

Finally, the Examiner asserts that even if the exclusion of other blowing agents was made evident in the claims, then the rejection would not be overcome as the omission of an element with consequent loss of function is obvious or involves only routine skill in the art if the omission of an element and its function in a combination where the remaining elements perform the same function as before. However, for the Examiner's argument to be valid, the reference must teach or suggest the "remaining elements." In the instant case, *Bodnar* does not disclose using a hydrocarbon free of halogen atoms as a blowing agent, as recited in the claims. The failure to teach or suggest this element is fatal to the Examiner's position, because the claims are neither anticipated nor rendered obvious by *Bodnar*. Therefore, withdrawal of the rejection is respectfully requested.

Conclusion

In conclusion, the references cited by the Examiner, alone or in combination, do not teach, show, or suggest the invention as claimed.

Having addressed all issues set out in the office action, Applicant respectfully submits that the claims are in condition for allowance and respectfully requests that the claims be allowed.

Respectfully submitted,

/Jason C. Huang, Reg. No. 46,222/

Jason C. Huang
Registration No. 46,222
PATTERSON & SHERIDAN, L.L.P.
3040 Post Oak Blvd. Suite 1500
Houston, TX 77056
Telephone: (713) 623-4844
Facsimile: (713) 623-4846
Attorney for Applicant(s)